Relationships Between Spectator Identification and Spectators' Perceptions of Influence, Spectators' Emotions, and Competition Outcome

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Previous research has indicated that spectators can influence the outcomes of athletic competitions. In Study 1, spectators' perceptions of their ability to influence the contests were examined. Results indicated that high levels of identification with sports teams were related to greater perceptions of influence. It was further predicted that high-identification fans would exhibit the most intense affective reactions to competition outcome. In Study 2 this proposition was tested and supported. High-identification fans reported an increase in pre- to postgame positive emotions following a win and an increase in negative emotions following a loss. Emotional changes were minimal for fans low in team identification. Finally, a third study was used to examine possible changes in team identification as a result of competition outcome for historically successful and marginally successful teams. The results indicated that although past team success was an important predictor of identification level, levels were not affected by game outcome.

Key words: emotion, win-loss, performance

Several empirical investigations have indicated that sports spectators can influence athletic performance and team success. For example, as early as 1923 Laird demonstrated that motor performance could be impaired when performed in front of a "razzing" audience. More recently, negative spectator behaviors (such as throwing objects onto the court) have been shown to influence the performance of both the home team (Thirer & Rampey, 1979) and the away team (Greer, 1983). In addition, spectators apparently have the ability to influence basketball officiating. Lehman and Reifman (1987) found that for star players, officials called fewer fouls at home than away, while no such bias was found for nonstars. Thus, the officials may feel pressure from the fans and, as a result, may protect the star players.

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In general, most authors frame their discussion of these audience effects around either social facilitation theory or research examining the home-field advantage. Social facilitation, originating with the work of Triplet (1897) and continued with the theorizing of Zajonc (1965), is the phenomenon whereby audiences arouse athletes resulting in the display of the athlete's dominant response. Several empirical investigations have substantiated this pattern of effects (e.g., Martens, 1969; Worthingham & Messick, 1983). With regard to the home-field advantage, supportive audiences may play a role in the enhanced performance of the home team, in addition to other factors such as travel and familiarity (see Courneya & Carron, 1992, for a review). This home-field advantage has been documented both in a wide variety of sports and with both male and female athletes (Courneya & Carron, 1992; Gayton, Mutrie, & Hearns, 1987; Schwartz & Barsky, 1987). Furthermore, self-presentational concerns about performing in front of a supportive audience may become so great that performance actually decreases (Leary, 1992). This "championship choke" (Heaton & Sigall, 1989, p. 1019) has been found in professional baseball and basketball (Baumeister & Steinleber, 1984), although the universality of this phenomenon has been called into question based on methodological issues and the inability to generalize the results to other sports (Benajfield, Liddell, & Benajfield, 1989; Gayton, Matthews, & Nickless, 1987; Heaton & Sigall, 1989; see also Courneya & Carron, 1992).

Thus, it is apparent that sports spectators have the ability to influence athletic competitions. However, what was unknown was the fans' own perceptions of their ability to influence the games. Certainly, many fans should feel they are able to help their team either by becoming a supportive audience for the home team (e.g., clapping their hands, stomping their feet, and performing other activities designed to "pump up" the home team players) or by being a disruptive force for the opposing team (e.g., yelling at the opposing players and other attempts aimed at distraction). In fact, it seems possible that the desire to increase the chances of the home team is one reason spectators do such things.

However, not all sports fans should believe that behaviors such as those mentioned above will lead to better home team performance. Rather, only those fans highest in identification with the team should perceive that they have the ability to influence the contest. This line of reasoning is based on other research finding that high-identification fans, relative to those low or moderate in identification, tend to exhibit the greatest intensity of responses to competitions involving their team. For example, high-identification fans, relative to other fans, exhibit greater increases in physiological arousal while viewing the team in competition (Branscombe & Wann, 1992a), are more likely to behave aggressively toward fans of the opposing team (Branscombe & Wann, 1992b), and exhibit stronger reactions to material describing their team (Wann & Branscombe, 1992). People high in identification with the team are also more likely to attend both home and away games than are those low in identification (Wann & Branscombe, 1993). As a result of this increased exposure to athletic competitions, these highly allegiant fans may begin to perceive a relationship between cheering and player performance. In fact, it is reasonable to assume that one reason highly identified spectators attend more games than other spectators is that they feel they are capable of influencing the games. Low-identification fans may not believe that their presence facilitates the performance of their team and, as a result, are less compelled to attend.
Thus, we hypothesized that there would be a significant positive relationship between level of identification for a sports team and perceptions of the ability to influence athletic competitions within that sport. We also predicted that high identification with a variety of teams would be positively correlated with general perceptions of the ability to influence sporting competitions. In addition to these hypotheses, we also examined differences in the perceptions of the ability to influence different sports and the impact of frequency of attendance. Differential perceptions of the ability to influence different sports was examined because the home-field advantage appears to be more prominent in some sports than others (e.g., football and basketball tend to have a more pronounced home-field advantage than does baseball, see Courneya & Carron, 1992). In addition, since high-identification fans are more likely to attend games than those low in identification (Wann & Branscombe, 1993), it appeared appropriate to examine this factor as well.

Study 1

Method

Subjects and Procedure. Undergraduates (50 male, 54 female) from two Midwestern universities participated in exchange for extra credit in their introductory psychology course. After reading and signing the consent statement, participants were asked to complete a seven-page packet of questionnaires. After completing the entire packet, subjects were debriefed and excused.

Materials. On the first page of the packet, subjects were asked to list their favorite college basketball team and then complete the seven-item Sports Spectator Identification Scale for that team (Wann & Branscombe, 1993). This scale assesses the subject’s perceptions of the importance of being a fan of this team, the importance of winning, the extent to which the fan sees him- or herself as a fan of the team, the degree to which friends believe the subject is a fan of the team, how closely the individual follows the team, how often the subject displays or wears items identifying the team, and how much the fan dislikes the team’s greatest rivals. These items were combined to form a single index of identification. Past research (Wann & Branscombe, 1993) has found that the scale accounts for greater than 66% of the variance and has a one-year test-retest reliability of .60. On the next four pages, the respondents were asked to follow the same procedure for their favorite college football, professional basketball, professional football, and professional baseball teams (again, items were combined to form a single index of identification for each sport type). Subjects were asked to complete the scales even if their feelings for the team were trivial. Finally, subjects’ scores on each of the five identification scales were combined to form a total-identification measure.

On the final two pages, subjects completed items designed to measure their perceptions of influence for the five target sports, as well as their actual attendance and involvement with these sports. Specifically, participants were asked to state the number of games they attend in a year for each of the five sports. These measures were also combined to form a total-attendance measure. They then responded to five questions asking them to state their perceptions of how much, in general, spectators could influence the outcome of each of the target sports (general influence) and five more questions on how much they personally try to
influence the outcomes of the sports when they attend (personal influence). The five general (e.g., "To what extent do you feel fans, in general, can influence the outcome of college basketball games?") and five personal (e.g., "When you attend, to what extent do you try to influence the outcome of college basketball games?") influence questions were scored on a 1 (not at all) to 9 (very much) Likert scale. Both general and personal influence questions were used because some fans may believe that teams can be influenced, yet rarely attempt to influence the competition themselves. In addition, the five general and five personal items were combined to form both total-general and total-personal indexes of influence.

Subjects then responded to five behavioral influence items assessing how frequently they exhibited five specific behaviors: yelling at the opposing players, opposing coaches, and officials; yelling encouragement to their favorite team; and level of involvement in the game. Each of these questions was scored on a similar 1 to 9 scale. The end points were never (1) and almost always (9) for the first four questions and not at all involved (1) and highly involved (9) for the involvement question. These five items were subsequently combined to form a behavioral influence index. As a final measure of perceptions of influence, subjects were asked the extent to which they believed that spectators could influence the momentum of sports contests on a 1 (fans have no influence on momentum) to 9 (fans have a great deal of influence) Likert scale.

Results

Levels of Identification. The questions on the Sports Spectator Identification Scale, combined to establish a single index of identification for each of the five target sports, had Cronbach’s reliability alphas of .95 or higher for each of the sports. Again, scores on the identification measures were summed to acquire a total-identification score representing the overall degree in which the subject was a sports fan. A significant MANOVA indicated that the levels of identification were different for the various sports, F(4, 412) = 21.07, p < .001. As seen in Table 1, the highest levels of identification were found for college and professional football, followed by college basketball and professional baseball, while the lowest level was found for professional basketball.

Gender Differences. Unlike previous research (Branscombe & Wann, 1991; Wann & Branscombe, 1993), males reported higher levels of identification than did females for all sports, with the exception of college football where the difference was marginally significant (see Table 1). However, the pattern of effects for the different sports was quite similar among the two genders. Furthermore, no significant gender differences were found on any of the analyses reported below (e.g., in comparisons of means via ANOVA tests or in correlations). Thus, all further analyses were conducted across the gender variable.

Perceptions of Influence. The five questions assessing the respondents’ perceptions of general influence and the five questions investigating how much they personally attempted to influence sporting events, combined to form two overall indexes of influence, had acceptable Cronbach’s alphas: total-general influence alpha = .88, total-personal influence alpha = .86. These two measures were positively correlated, r(102) = .466, p < .0001. The third measure of influence, behavioral influence index, acquired by combining the five behavioral influence items, was subjected to a principle components factor analysis that
Table 1  Means for the Identification Scores by Sport and Subject Gender

<table>
<thead>
<tr>
<th>Sport</th>
<th>All subjects</th>
<th>Males</th>
<th>Females</th>
<th>Significance tests by gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5.42b</td>
<td>3.60b</td>
<td>20.76 &lt; .001</td>
</tr>
<tr>
<td>College basketball</td>
<td>4.47a</td>
<td>5.59a</td>
<td>4.89a</td>
<td>3.01 = .08</td>
</tr>
<tr>
<td>College football</td>
<td>5.23c</td>
<td>4.41c</td>
<td>3.15c</td>
<td>10.97 &lt; .01</td>
</tr>
<tr>
<td>Professional basketball</td>
<td>3.75d</td>
<td>5.83d</td>
<td>4.64d</td>
<td>9.16 &lt; .01</td>
</tr>
<tr>
<td>Professional football</td>
<td>5.21e</td>
<td>4.99e</td>
<td>4.05e</td>
<td>5.83 &lt; .05</td>
</tr>
<tr>
<td>Professional baseball</td>
<td>4.50f</td>
<td>5.24f</td>
<td>4.06f</td>
<td>14.60 &lt; .001</td>
</tr>
<tr>
<td>Total score</td>
<td>4.61</td>
<td>5.24f</td>
<td>4.06f</td>
<td></td>
</tr>
</tbody>
</table>

Note. Total score refers to the subjects’ mean score on the five identification measures. Within each column, means sharing a common superscript do not differ at the \( p < .05 \) level.

Table 2  Means for the Perceptions of General and Personal Influence Scores by Sport

<table>
<thead>
<tr>
<th>Sport</th>
<th>Perceptions of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General</td>
</tr>
<tr>
<td>College basketball</td>
<td>6.70g</td>
</tr>
<tr>
<td>College football</td>
<td>6.67g</td>
</tr>
<tr>
<td>Professional basketball</td>
<td>6.03h</td>
</tr>
<tr>
<td>Professional football</td>
<td>6.18h</td>
</tr>
<tr>
<td>Professional baseball</td>
<td>5.55h</td>
</tr>
<tr>
<td>All sports</td>
<td>6.23</td>
</tr>
</tbody>
</table>

Note. All sports refers to the subjects’ mean score for the five sports. For each column, sports means sharing a common superscript are not significantly different at the \( p < .05 \) level.

revealed a single factor accounting for 66.5% of the total variance (eigenvalue = 3.323). A Cronbach’s reliability alpha of .87 was a further testament to the appropriateness of combining these items. The final measure of influence was the single item assessing the respondents’ perceptions of the extent to which fans have the ability to influence the momentum of contests.

The mean scores for the individual general and personal influence measures appear in Table 2. MANOVAs computed for the five general and five personal influence measures found significance for both the general, \( F(4, 412) = 14.78, p < .001 \), and personal influence, \( F(4, 412) = 13.74, p < .001 \), revealing that the various sports were perceived differently. With regard to the general influence questions, the lowest reported perceptions of influence were for baseball, whereas subjects stated that spectators had the greatest amount of influence on college
basketball and college football. On the personal influence items, subjects were least likely to try to influence the outcomes of professional basketball contests and most likely to attempt to influence college football games. In addition, Table 2 reveals that all general influence questions received a rating above the 4.5 midpoint on the 1 to 9 scale. However, only three of the personal influence questions reached this level of perceived influence, and all personal influence items were rated lower than the lowest general influence question (baseball).

To test the hypothesis that there would be a significant positive relationship between subjects' levels of identification with the five sports and their perceptions of influencing those sports, degree of identification with each team was correlated with the corresponding perceptions of general and personal influence. The correlations, which appear in Table 3, confirmed this hypothesis. A significant positive relationship between identification and perception emerged for each of the five sports. With the exception of professional football, \( t(101) = 1.15, p > .10 \), the correlations were significantly greater for general relative to personal influence (all \( r_s > 2.72 \), all \( ps < .01 \)). Thus, the fans' levels of identification with a team were more strongly connected to their general perceptions of the influenceability of a sport team than to their own attempts to influence the sport.

Respondents' scores on the total-general and total-personal influence measures were correlated with their total-identification measure and their total-attendance score. As expected, a significant positive correlation emerged between the total-identification measure and total-general influence, \( r(102) = .409, p < .001 \), and between the total-identification measure and total-personal influence, \( r(102) = .652, p < .001 \). The correlation between total-attendance and total-general influence was not significant, \( r(102) = .083, p > .10 \), whereas the relationship between total-attendance and total-personal influence was statistically reliable, \( r(102) = .387, p < .001 \). A comparison of the correlations indicated significantly stronger relationships between total-identification/total-general and total-identification/total-personal than between total-attendance/total-general and total-attendance/total-personal, \( t(101) = 3.21, p < .01 \), and \( t(101) = 3.62, p < .01 \), respectively. Thus, identification was more strongly related to perceptions of influence than was attendance.

Table 3  Correlations Between Perceptions of General and Personal Influence for each Specific Sport and Level of Identification for that Sport

<table>
<thead>
<tr>
<th>Focus of identification</th>
<th>Perceptions of influence for specific sport</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>College basketball</td>
<td>.664</td>
<td>.451</td>
</tr>
<tr>
<td>College football</td>
<td>.679</td>
<td>.309</td>
</tr>
<tr>
<td>Professional basketball</td>
<td>.592</td>
<td>.303</td>
</tr>
<tr>
<td>Professional football</td>
<td>.587</td>
<td>.495</td>
</tr>
<tr>
<td>Professional baseball</td>
<td>.551</td>
<td>.260</td>
</tr>
</tbody>
</table>

Note. All correlations are significant at the \( p < .01 \) level.
The five-item behavioral influence index and responses to the momentum item were also analyzed by computing correlations between these measures and the total-identification and total-attendance scores. Again, in support of the hypothesis, a positive relationship was found between both the behavioral influence index and the momentum item, and the total-identification index, $r(102) = .603, p < .001$, and $r(102) = .376, p < .001$, for the behavioral influence index and momentum item, respectively. Also consistent with the above analyses, these measures were positively related to total-attendance: behavioral influence index, $r(102) = .467, p < .001$; momentum measure, $r(102) = .249, p < .01$. However, the correlations between these measures and the total-identification index were only marginally greater than those between these measures and total-attendance: $r(101) = 1.67, p < .10$, for the behavioral influence index, and $t(101) = 1.27, p < .15$, for the momentum item.

**Discussion**

The results of Study 1 substantiated the hypothesis that level of identification and perceptions of the ability to influence the outcome of a sporting event are positively related. This pattern of effects was found for a variety of sports and for general and personal perceptions of influence, as well as actual behavioral attempts to influence sports contests. Respondents indicated a belief that, in general, fans have the greatest ability to influence football and basketball games (especially college) and that spectators have the least amount of influence on professional baseball games. Interestingly, these results are quite consistent with Courneya and Carron's (1992) review of the home-field advantage in sports. In their examination, they found larger effect sizes for football and basketball than for baseball. Thus, it appears that our sports fan subjects were quite accurate in their perceptions.

The respondents also reported greater perceptions of influence (general and personal) for college versus professional teams. One possible explanation of this relationship is that, as noted by several authors, college sports fans tend to be unusually high in identification (Goldstein & Arms, 1971; Schurr, Ruble, & Ellen, 1985; Zillmann, Bryant, & Sapolsky, 1979). Our subjects were all college students and, therefore, may have been more likely to support and identify with collegiate teams. By living on a college campus, they were also more likely to attend college versus professional sporting events. As a result, they probably had come into contact with more situations in which fans influenced athletic events at the college level, as opposed to the professional level.

Significant differences were also found for levels of identification for the different sports. These differences should be interpreted with caution, however, because these effects are most likely due in part to geographic location. That is, sports fans living near "tobacco road" in North Carolina (a region with several front-line college basketball programs) probably are most likely to identify with college basketball teams. But, persons living in larger cities (such as Los Angeles or Chicago), where professional sports teams receive the most coverage, are probably more likely to identify with these professional teams.

The analyses involving frequency of attendance revealed some interesting trends. While there was no relationship between total-attendance and
total-general influence, there was a significant positive correlation between total-attendance and total-personal influence. Evidently, believing that fans, in general, are able to sway the results of athletic competitions is unrelated to attendance. However, if fans believe they personally are able to affect the contest, then they are more likely to attend. In addition, a stronger relationship was found between total-identification and perceptions of influence than between total-attendance and influence. Thus, while attendance is related to perceptions of influence (at least for personal influence), it is less important than generally being a sports fan.

A final note on the data and analyses of Study 1 should be mentioned: The results of this research were correlational in nature. As such, making determinations of causal patterns is not possible. It remains unclear whether (a) sports fans first become identified with a team and then develop perceptions of the ability to influence that team’s performance or (b) fans believe they can influence a team which leads them to become more highly identified with that team. Similarly, one cannot be sure of the causal pattern for the relationship between attendance and influence. Most likely, these relationships are reciprocal—that is, the causal pattern is bidirectional. However, such a statement is purely speculative and future research (perhaps of a longitudinal nature) is needed to determine the cause and effect relationships.

Study 2

The results of Study 1 indicated that sports spectators believe they have the ability to influence the outcomes of competitions. Furthermore, while these perceptions were significantly correlated with the spectators’ differing levels of identification with the team, the perceptions were not simply a function of frequency of attendance. It stands to reason that if high-identification fans believe that spectators, in general, can influence athletic competitions and if they personally attempt to sway the outcomes, then these persons should become extremely frustrated when their team suffers a defeat. Likewise, high-identification spectators, compared to low-identification spectators, should experience positive affect when their team is victorious. Their attempts to encourage the home team and/or to thwart the opposition should result in greater frustration (upon defeat) or greater happiness (subsequent to success) than low-identification fans who are less likely to try to influence the game. Greater attempts at influence should result in greater amounts of investment and personal involvement in the competition. This, in turn, should result in more dramatic affective reactions to the outcome. The testing of this prediction was the focus of Study 2.

Certainly, other authors have shown an interest in the emotional reactions of sports spectators. Although the majority of work has focused on feelings of aggression and hostility (for reviews see Branscombe & Wann, 1992b; Simons & Taylor, 1992), other investigations have examined less violent reactions to sports competitions. For example, Sloan (1979) assessed the pre- and postgame mood of spectators attending one of three college basketball games: a loss, an easy win, or a difficult win. The results indicated that negative emotions such as anger, discouragement, sadness, and irritability
increased following a loss but remained unaffected by a win. Conversely, positive emotions such as happiness, satisfaction, and pleasure increased following a difficult win, decreased subsequent to a loss, but were unchanged by an easy win.

Other researchers have examined the effects of competition outcome on fans' perceptions of world events. Schwarz, Strack, Kommer, and Wagner (1987) examined reactions to wins and ties during the 1982 World Cup Soccer Championship. Results indicated that subjects experienced an increase in well-being and satisfaction with work and national issues after the win. These increases were not found following a tie. Similarly, Schweitzer, Zillmann, Weaver, and Lattrell (1992) found that followers of a losing college football team report higher postgame levels of tension but lower levels of euphoria than supporters of the victorious team. Furthermore, fans of the losing team believed that a war involving their country was more likely and that there would be a larger number of casualties.

Thus, research has found that outcomes of sporting events can have dramatic effects on the mood states of spectators. However, all of the research described above does not take into consideration the differing identification levels of sports fans. Study 1 showed that a strong relationship exists between level of identification and perceptions of the ability to influence sporting events. As mentioned previously, such perceptions should enhance the excitement of victory and increase the anguish of defeat. As such, it was predicted that, as found previously (e.g., Sloan, 1979), spectators would show an increase in positive mood and a decrease in negative mood following victory. The opposite pattern was predicted following defeat.

However, Study 2 attempted to extend this previous research by examining the spectators' various levels of identification with the team as influencing the magnitude of the proposed effects. That is, it was hypothesized that there would be a significant two-way interaction involving level of identification and competition outcome. Specifically, it was thought that high-identification spectators would show the most dramatic pre- to postgame increases in positive affect following a victory and the most intense negative affective reactions to the team's defeat. Low-identification fans were expected to show only minimal emotional responses to competition outcome because for these subjects the competition is less relevant to their social identity (Crocker & Major, 1989; Harter, 1986). In addition, we expected the highly identified subjects' reactions to be more extreme following a difficult win compared to an easy win.

It was also predicted that there would be a two-way identification by outcome interaction involving two arousal-related emotions: feeling tired and tense (also reviewed by Sloan, 1979). It was expected that the subjects would report feeling most tired and tense following the loss, and that these reactions would be most intense for the high-identification fans. Reactions to the easy win were expected to be minimal for both groups of fans. In the difficult win condition, it was predicted that high-identification subjects would exhibit fewer feelings of being tired (a result of the elusiveness of victory), whereas low-identification subjects would report an increase in this emotion. Conversely, for tension, high-identification subjects would become more tense (a result of their team almost losing), while low-identification subjects would be mildly less tense following the competition.
Method

Subjects and Design. The subjects for this study were 156 (92 male, 64 female) undergraduate psychology student volunteers. The subjects earned extra credit in their psychology course in exchange for participation. The design for this study was a $2 \times 3 \times 2$ (Identification Level Median Split [high or low] $\times$ Game Outcome [easy win, difficult win, or loss] $\times$ Trials [pre-game and post-game]) mixed-factor design with trials as the repeated measures factor.

Procedure. During the 1992–1993 season, subjects were asked to meet in a testing room one hour prior to one of the men's basketball home games for a mid-sized NCAA university. The games were selected because they had the possibility being either an easy victory for the target team, a difficult victory, or there was a strong possibility that they would lose the game. The game selections worked out as planned. In the easy win condition, the target team defeated a much smaller NAIA school by the score of 93 to 80 (the team had a 12-point or greater lead throughout the second half and was never threatened). The difficult win condition involved the target team and one of its greatest rivals. In this context, the opposing team led throughout the game until the final minute of play when the target team took the lead and eventually won by a final score of 94 to 93. The lose condition found the target team losing 79 to 74.

Upon arriving at the testing session, subjects read, signed, and returned a consent statement. The participants were then asked to complete two separate questionnaires: the Sports Spectator Identification Scale (Wann & Branscombe, 1993) and a 14-item mood scale. After completing the scales, the participants were given instructions concerning the procedure for the remainder of the study. Specifically, they were told that they would be escorted to the basketball arena and were to watch the entire game. They were allowed to sit anywhere in the arena that they desired. However, to ensure that they did not leave the game only to return again when it was finished, all subjects were asked to report to the researcher during half-time (at a predetermined location inside the arena). Participants were further instructed to meet at a specific section of the arena following the game to complete a final post-game mood inventory, which contained the same items as the pre-game mood scale. In order to match their pre- and post-game scales while maintaining their anonymity, subjects were given index cards with a subject number and asked to write this number at the top of each questionnaire. Once it was assured that all subjects understood the instructions and procedures, they were escorted to the arena. Following the game and after they had completed the final mood scale, the respondents were debriefed and excused from the study.

Materials. The Sports Spectator Identification Scale was identical to that used in Study 1. Again, the seven items were combined to form a single index of identification. The pretest mood scale included 14 items (angry, irritated, sad, hostile, tense, happy, pleased, discouraged, frustrated, upset, tired, energetic, satisfied, and confident) and asked subjects to rate how they were currently feeling on a 1 (not at all) to 9 (extremely) Likert scale. The items were taken from a similar 16-item scale employed by Sloan (1979). The only difference between the current scale and the one used by Sloan was that in the present study the items calm and benevolent were omitted. In his research, Sloan found no differences in scores on these items, indicating a lack of sensitivity in sport
settings. The posttest measure of mood was identical to the pretest measure. Although past research in sport settings has tended to utilize the Profile of Mood States (McNair, Lorr, & Droppleman, 1971) when investigating affect in sports, Sloan’s measure was employed here because this research was a partial replication of his earlier study.

Results

One subject did not report during half-time and two subjects did not return for the postgame portion of the study. The data for these subjects were not included in the analyses. There were no significant main or interaction effects involving gender (as indicated by ANOVA tests on each of the indexes of emotion), and thus, this variable was not analyzed further. The seven identification items were combined to form a single index (Cronbach’s reliability alpha = .94). The two identification groups were statistically different, $F(1, 151) = 386.16, p < .0001$, as the high-identification group was indeed higher on the scale ($M = 5.92$) than the low-identification group ($M = 2.64$).

To simplify the analyses and to arrive at a measure of affect change as a consequence of identification level and competition outcome, subjects’ pregame mood scores were subtracted from their postgame scores resulting in a measure of mood change, with larger positive numbers representing greater increases in mood and larger negative numbers indicating greater decreases in mood. To further simplify the analyses, the positive mood items (pleased, happy, energetic, satisfied, and confident) and the negative mood items (discouraged, frustrated, upset, angry, irritated, sad, and hostile) were combined to form indexes of positive and negative mood. Cronbach’s reliability alphas for both the positive and negative indexes indicated that this procedure was appropriate (alphas = .82 and .94 for the positive and negative indexes, respectively). The tired and tense items were analyzed separately due to the contradictory predictions concerning these items. The mean difference scores for the individual items and the positive and negative indexes appear in Table 4.

To test our hypotheses concerning the impact of competition outcome and level of identification on the subjects’ affective reactions, a separate analysis of variance was conducted on the positive index, negative index, tired item, and tense item (a MANOVA was not used because of the conflicting predictions for the four indexes/items). With regard to the positive index, this analysis revealed a significant main effect for game outcome, $F(2, 147) = 30.29, p < .0001$, as the greatest increase in positive emotion was found following the difficult win condition ($M = 1.21$), and the largest decrease in positive emotions was exhibited after the loss ($M = -1.80$). The subjects’ reactions to the easy win were mildly positive ($M = 0.45$). The identification level main effect was not significant.

As hypothesized, the game outcome main effect was qualified by a significant Identification Level $\times$ Game Outcome interaction, $F(2, 147) = 4.43, p < .02, R^2 = .294$. As depicted in Table 4, the largest increase in positive mood was found among the high-identification subjects following the difficult win, and the greatest decrease in positive mood was found among high-identification respondents subsequent to the loss. However, post hoc Newman-Keuls tests indicated that although the difference between the high- and low-identification
subjects was significantly different in the lose condition, it was not in the difficult win condition.

The ANOVA computed on the negative mood index also revealed a main effect for game outcome, $F(2, 147) = 52.93, p < .0001$, as a large increase in negative emotions was reported following the loss ($M = 3.14$), whereas small decreases in negative affect were found after the difficult ($M = -0.60$) and easy wins ($M = -0.25$). Again, the identification level main effect was not significant.

As hypothesized, however, this effect was qualified by a significant Identification Level $\times$ Game Outcome interaction, $F(2, 147) = 9.35, p < .001, R^2 = .23$. As shown in Table 4 and consistent with the predictions, the largest increase in negative mood was found among high-identification subjects following the loss, and the greatest decrease in negative emotions was exhibited by high-identification respondents after the difficult win. Although the means were in the predicted direction in both the lose and difficult win conditions, Newman-Keuls tests indicated that even though the difference between the two identification groups in the lose condition was significant, the difference between these groups in the difficult win condition was not statistically reliable.

The ANOVA computed on the tired item revealed a significant main effect for game outcome, $F(2, 147) = 11.47, p < .0001$, in which subjects became more tired after the loss ($M = 2.32$), but reported minimal changes on this item following the difficult ($M = 0.02$) and easy win ($M = -0.09$). The identification level main effect was not significant. The predicted two-way interaction involving game outcome and identification level was not significant, ($p = .11$). However, as seen in Table 4, the effect was in the predicted direction as a loss resulted in the greatest increase in feeling tired (especially among highly identified respondents) and a difficult win caused low-identification persons to become more tired, while the same game caused high-identification persons to report feeling less tired. However, post hoc analyses indicated that, while the means were in the predicted
direction, the difference between the high- and low-identification subjects in the
difficult win and lose conditions was not significant.

The ANOVA used to analyze the tension item revealed statistically signifi-
cant main effects for game outcome. $F(2, 147) = 15.78, p < .0001$, and identifica-
tion level, $F(1, 147) = 6.71, p < .02$. With regard to game outcome, large increases
in tension resulted from the loss ($M = 2.90$) but not from either the difficult or
easy win ($M = 0.07$ and $-0.17$, respectively). As for identification level, the high-
identification persons indicated a postgame increase in tension ($M = 1.21$) that
was absent from low-identification subjects ($M = -0.15$).

The predicted interaction was significant, $F(2, 147) = 4.42, p < .02, R^2 =
.22$. Consistent with the hypothesis, subjects exhibited an increase in tension
after the loss, and this effect was much more pronounced for high-identification
individuals. Furthermore, in the difficult win condition, low-identification sub-
jects displayed a slight decrease in tension, whereas high-identification persons
reported a slight increase. Newman-Keuls tests indicated that the tension increase
found among high-identification persons following the loss was greater than that
reported by those low in identification.

Discussion

The results of Study 2 strongly supported the hypotheses that (a) sports
spectators would exhibit negative affective reactions to their team’s loss but
positive response to a win and (b) these effects would be moderated by level of
identification with the team. These results substantiate other recent investigations
of fan emotions using different media. Specifically, Hirt, Zillmann, Erickson, and
Kennedy (1992) found that high-identification persons exhibited strong affective
reactions to televised competition, and Wann and Branscombe (1992) found
similar results for reactions to the sports page. In these studies, spectators low
in identification exhibited only minimal responses. The demonstration of these
effects in different settings is important because, as discussed by Duncan and
Brummett (1989), reactions to team competition may be a function of the medium
employed in the research. The current study, combined with the work of Hirt et
al. (1992) and Wann and Branscombe (1992), demonstrates the robustness of
the results.

As predicted, spectators low in identification with the sports team exhib-
ited significantly less intense negative postgame emotions in response to team
defeat, relative to those high in identification. It was mentioned earlier that
this pattern of effects was expected because game outcome was only slightly
relevant to the social identity of the minimally allegiant fans. However, another
mechanism was also most likely at work here. Research has indicated that
persons low in identification were much more likely to decrease their association
with the team following defeat (Wann & Branscombe, 1990). These increased
tendencies to cut off the reflected failure of the team protect one’s ego (Snyder,
Laszegard, & Ford, 1986). When faced with the team’s defeat, spectators
who are low in identification can employ this distancing technique and buffer
themselves against any negative emotions resulting from the loss. This process
is unavailable to those spectators who are high in identification, and as a
result, these fans experience unfavorable emotions such as sadness, anger, and
discouragement. Similarly, persons low in identification exhibited somewhat
less intense reactions to the team’s victory. This, too, was consistent with past research finding that persons low in identification with the team were less likely than highly identified fans to bask in the success of the team’s victory (Wann & Branscombe, 1990).

The most extreme reactions to the sporting events were exhibited by high-identification spectators after a loss which has important implications for spectator aggression. This finding is entirely consistent with two new theories of spectator aggression that incorporate level of identification into their models (Branscombe & Wann, 1992b; Simons & Taylor, 1992). Apparently, these theories are correct in their assertions that violent eruptions may emanate more from high-identification fans than from low-identification fans subsequent to a team’s defeat. It appears that the negative emotional reactions highlighted in the current research precipitate fan aggression. Furthermore, it appears that it is primarily reactions to a loss that differentiate high- and low-identification fans. Again, this most likely plays a role in the finding that high-identification sports spectators exhibit aggression following unsuccessful competitions involving their team, while no such aggression is exhibited by fans low in identification (Branscombe & Wann, 1992a).

Study 3

Study 2 demonstrated that high-identification fans exhibit more intense affective reactions to the successes and failures of their team than do low-identification fans. This finding leads to an obvious and intriguing question. If spectators are so emotionally invested in the outcomes of competitions involving their favorite team, then how and to what extent does outcome influence identification level? That is, research involving spectators has typically focused on identification level as a predictor variable and examined its impact on subsequent reactions. However, because spectators are so involved in the game, their identification level may also be affected by the outcome. Here, identification is examined as a dependent variable. To date, research had yet to examine postgame levels of identification as a function of competition outcome. Such an investigation was the focus of Study 3.

While empirical data were nonexistent, various authors had argued that such research was warranted. For example, Murrell and Dietz (1992) stated, “One important direction for future research is to determine whether the impact of fan identification is indeed resistant to the outcome of social competition” (p. 36). These authors, based on social identity theory (Tajfel & Turner, 1979), argued that identification should remain stable, regardless of the outcome of the competition. Previous work finding consistent one-year test–retest scores on identification substantiates this claim (Wann & Branscombe, 1993).

Thus, two hypotheses were tested. First, we predicted that spectators would not exhibit differential levels of identification following successful versus unsuccessful outcomes. However, because spectators have a tendency to act as “fair-weather fans,” basking in reflected glory during good times but cutting off reflected failure during trying times (Wann & Branscombe, 1990), we also hypothesized that fans supporting traditionally more successful teams would report higher levels of identification than spectators identified with less successful teams.
Method

Subjects and Design. The subjects for this field study were 267 (145 male, 122 female) spectators attending one of four basketball games at one of two universities. One program had been highly successful over the past 5 years (99 wins, 54 losses), winning its conference 5 consecutive years and the conference tournament in 4 of the previous 5 years. The other program had been only minimally successful (5-year record: 65 wins, 71 losses). The design was a 2 × 2 (University [highly successful or minimally successful] × Game Outcome [win or loss]) between-subjects factorial.

Procedure. At the conclusion of each game, spectators were approached as they left the stadium and were asked to complete a consent statement and a one-page questionnaire containing nine items. The first seven items comprised the Sports Spectator Identification Scale (Wann & Braascombe, 1993) while the last two asked subjects to state their gender and which team they had supported (the home team or their opponent). After returning the consent statement and questionnaire, subjects were thanked for their assistance and dismissed.

Results

There were no significant main or interaction effects for gender (as indicated by an ANOVA), and thus, this variable was not analyzed further. The seven items on the identification scale were again combined to form a single index (Cronbach’s reliability alpha = .88). To analyze the hypotheses that (a) game outcome would not significantly influence the identification levels of fans and (b) levels of identification would be higher for the traditionally more successful team; a 2 × 2 (University [highly successful or minimally successful] × Game Outcome [win or lose]) between-subjects analysis of variance was computed on the identification measure. The game outcome main effect was not significant, thus supporting the first hypothesis (win condition M = 5.72, lose condition M = 5.80). Further, and in support of the second prediction, higher scores were reported by supporters of the successful team (M = 6.09) than by fans of the unsuccessful team (M = 5.46), F(1, 266) = 13.22, p < .0001. The interaction was not significant.

Discussion

Support was found for both predictions—spectators reported higher levels of identification for successful teams, but game outcome did not significantly influence their level of identification. Thus, consistent with previous research (Wann & Braascombe, 1993) and theorizing (Murrell & Dietz, 1992; Tajfel & Turner, 1979), level of identification appears to be quite stable. Such a conclusion leads one to wonder what factors contribute to one’s level of identification. A recent investigation was designed to provide answers to this question (Wann & Tucker, 1994). In this research, subjects were asked to list why they began, continued, and stopped following sports teams. The results indicated that the success of the team, geographical reasons, group and family affiliations, and a preference for the particular sport were all reported as major contributors to identification.

It is important to note that the current study was elementary in design. A stronger test could be achieved either by employing a pre- and postgame design...
or by using a longitudinal design. These methodologies would have two distinct advantages. First, a pregame/postgame design would permit an examination of pre-to-postgame changes in identification for individuals, thus allowing for an investigation of within-subjects effects. Second, the longitudinal design would allow for an investigation of season-long changes in identification by subjects with differential levels of allegiance. That is, such an investigation would allow the researcher to examine hypotheses concerning identification changes for persons high versus low in allegiance. It is possible that one of these groups may be more influenced by competition outcome than the other.

**Conclusion**

The studies described above found that level of identification was an important predictor both in fans’ perceptions of their ability to influence sports competitions and in their affective reactions to the games. Yet competition outcome was not found to influence level of identification. Thus, these studies further our understanding of the psychology of sports spectators. This understanding is important because so little is known about spectators. In fact, a recent investigation into the sports psychological and sociological literature over a 5-year period (1987–1991) found that only 4% of the research articles examined sports fans (Wann & Hamlet, in press). However, because so many individuals consider themselves sports fans (one study found that 70% of its respondents read, discussed, or watched sports on a daily basis; Iso-Ahola & Hatfield, 1986), research on sports fans continues to be warranted.

**References**


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**Notes**

The correlation between the total-identification and total-attendance measures was .368, *p* < .001.

In fact, this was indeed the case. The pregame mean was 2.20 for the negative index but 5.77 for the positive index. A within-subjects *t* test computed on these means indicated that they were significantly different, *t*(152) = 16.14, *p* < .0001.

We attempted to replicate this design with the schools’ football teams, but one team did not lose a home game during the entire season. We were therefore unable to complete the 2 × 2 design. For the three cells that were completed, the data paralleled the results from the basketball study. However, because one condition was not run, interpreting these results should be done with caution.

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